

## Remarks

### I. Introduction

There are 28 pending claims in the present application. Of these claims, claims 1, 8, 15, and 22 are independent method claims. The remainder are dependent claims, and claims 2-7 depend from claim 1, claims 9-14 depend from claim 8, claims 16-21 depend from claim 15, and claims 23-28 depend from claim 22.

The Examiner has rejected the pending claims on a variety of bases under 35 U.S.C. §103 for obviousness. In asserting these bases of rejection, the Examiner has relied primarily on the combination reference U.S. Patent No. 6,275,824 to O’Flaherty et al. (“O’Flaherty”) and U.S. Patent No. 6,268,850 to Ng (“Ng”). As will be shown, the Examiner has improperly relied on this combination because it teaches away from the claims of the present invention in principle and fact, and as such, a person of ordinary skill in the art would not find the present invention obvious even if these references could be properly combined (which Applicant submits they cannot). The Examiner further combined the O’Flaherty/Ng combination with additional references to form alleged combinations to render the claims obvious. The additional references include, Date, C.J., An Introduction to Database Systems, 7<sup>th</sup> Ed., May 2000, p. 4 (“Date”), Utley, Craig, Designing the Star Schema Database, Feb. 2, 2001, pp. 1 and 6 (“Utley”), and U.S. Patent No. 5,911,143 TO Deinhart et al. (“Deinhart”). Applicant submits that even if these references are combined with the O’Flaherty/Ng combination, the claims of the present invention are not rendered obvious because they fail to cure the infirmities of O’Flaherty/Ng combination to support a proper obviousness rejection.

The references relied on by the Examiner in rejecting claims 1-28 for obvious under 35 U.S.C. § 103 are set forth in the following Table:<sup>1</sup>

Rejected Claims	Primary Reference	Secondary References
<b><i>1-3</i></b>	O’Flaherty	Ng
<b><i>4-5</i></b>	O’Flaherty	Ng, Date
<b><i>6-7</i></b>	O’Flaherty	Ng, Utley, Craig
<b><i>8-10, 15-17,</i></b>	O’Flaherty	Ng, Deinhart

<sup>1</sup> For convenience, the independent claims are shown in bold and italics.

22-24		
11-12, 18-19, 25-26	O'Flaherty	Ng, Deinhart, Date
13-14, 20-21, 27-28	O'Flaherty,	Ng, Deinhart, Utlely

Applicant will address each of these bases for rejection and demonstrate that these rejections are traversed and should be withdrawn. By this being the case, the present invention is in condition for allowance and should be passed to issue in due course.

## II. O'Flaherty

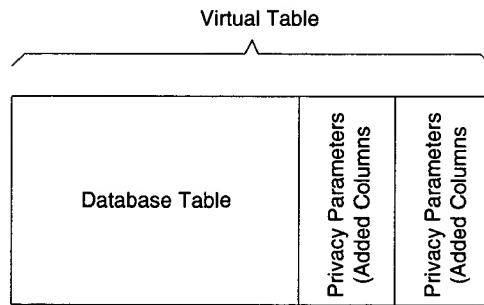
The Examiner has primarily relied on O'Flaherty in forming each of his bases for rejection of the pending claims of the present application. Applicant will now set forth the teachings of O'Flaherty according to that patent's disclosure.

The basic understanding of O'Flaherty that the Examiner has relied upon is set forth in columns 4 and 5 of the patent, which is only a portion of the section of the patent titled "Overview." However, before addressing the disclosure of O'Flaherty at columns 4 and 5, it is believed that the disclosure of this patent in the "Summary of the Invention" ("Summary") is important to understand. In the pertinent part, the Summary states the following:

The apparatus comprises a database management system, for storing and retrieving data from a plurality of database tables wherein the data in the database tables is controllably accessible according to privacy parameters stored in the database table... (Emphasis added.) (Col. 2, lines 57-61).

The method comprises the steps of extending a database table to store and retrieve privacy parameters for the data stored in the database table, the privacy parameters collectively stored in a plurality of database columns associated with the data... (Emphasis added.) (Col. 3, lines 1-5)

The quotations above from the Summary clearly establish that O'Flaherty is the directed to privacy parameters that are in the form of additional columns used to extend particular database tables. Moreover, these privacy parameters are described as being stored in the database table with the data to which they apply to form a single database table. More simply, O'Flaherty involves the creation of an alleged type of composite virtual table that is depicted graphically below:



The “Overview” of the O’Flaherty system and method is described at columns 4 to 7 of the patent. This includes the portions of O’Flaherty primarily relied on by the Examiner in columns 4 and 5. The database management system of O’Flaherty defines a virtual table and that definition is saved in the database as metadata. What is formed by this method is referred to in O’Flaherty as a “dataview.” The virtual table that is the dataview is not physically found in any database until it is needed. (Col. 4, lines 7-15).

Access to the data stored in the extended database (data and privacy parameters) is through what has been termed a “dataview suite.” This system element is a suite of privacy metadata dataviews. The system also permits the override of the customer privacy parameter preferences. Such overrides are monitored so that notice can be made when such overrides occur. (Col. 4, lines 37-48). The limiting of access to data stored in the extended database by use of the privacy dataview suite has three purposes:

- 1) to implement privacy rules to make personal data anonymous,
- 2) to restrict access to opted-out columns,
- 3) to exclude entire rows for opt-out purposes based on consumer opt-outs.

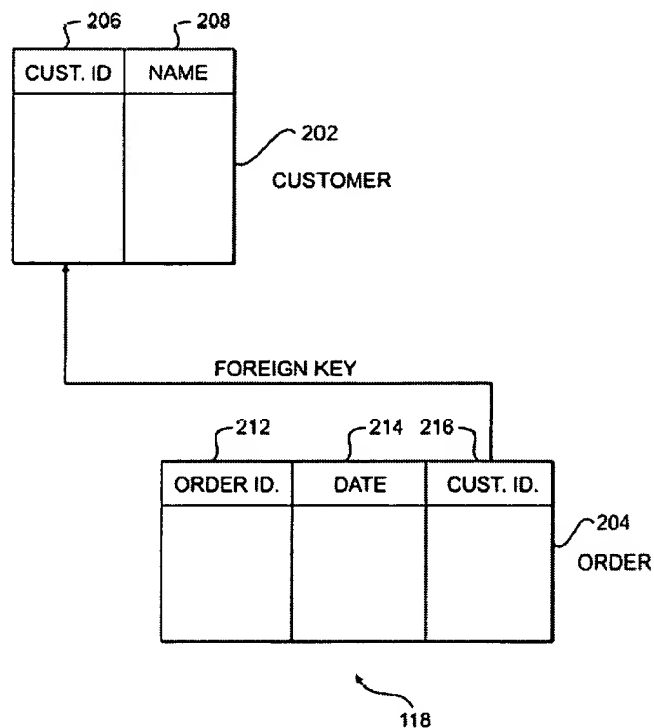
(Col. 4, lines 49-60).

The O’Flaherty system also includes a client interface module that is used by the client to manage its data. The client interface permits the client to modify its privacy parameters preferences. (Col. 4, line 61 – col. 5, line 8). Accordingly, the privacy parameter preferences are layered on top of the data in the database that includes both the protected data and the privacy parameter preferences.

### III. Ng

Ng was cited by the Examiner for teaching the use of foreign keys in relational database systems. Ng this titled “User Interface for the Specification of Lock Groups.”

Figure 2 in Ng shows the following:



**FIG. 2**

The customer table 202 includes a customer ID column 206 and name column 208. The customer ID column 206 serves as the primary key of the customer table 202. The order table 204 includes were ID column 212, date column 214, and customer ID column 216. The order ID column 212 serves as the primary key for the order table 204. Customer ID column 216 is the foreign key from column 206 of the customer table.206. This will mean that customer ID column 216 refers to the customer ID column 206 in one or more rows.

The description provided in Ng is directed to a relational database schema that is particular to the type of relational database described in Ng but there is no disclosure in Ng that represents its disclosure with respect to Figure 2 is applicable or desired for all database situations. Moreover, the Examiner has not advanced in the Office Action that

the disclosure in Ng with respect to Figure 2 was generally applicable only that Ng refers to a foreign key.

#### **IV. The Present Invention**

The present invention is an internal security method to prevent unauthorized access to restricted data. Unlike the O’Flaherty system, the present invention does not provide a system that is susceptible to “hacking” even if someone were to gain access to restricted data.

According to the present invention, there is no need for security coding to be layered on top of the system application to prevent unauthorized access to database information. The database structure is created in the form of views that are available to particular system users. These views, however, are not “dataviews” as described in O’Flaherty that include data and privacy parameters associated with such data in a single database. The views according to the present invention are retrievable through the use of primary and foreign keys in such a manner that hacking is thwarted.<sup>2</sup>

The internal security provided by the present invention may be implemented through the database server and not the system server. The system permits hierarchical viewing of the restricted data information, which will not permit a hacker to gain general access to the data information even though system users share data information.

#### **V. Claims 1-3 Are Not Rendered By O’Flaherty and Ng**

The legal standard for a finding of obviousness based on a single reference is that there must be a showing of a suggestion or motivation to modify the teachings of the reference to demonstrate the claimed invention. *B.F. Goodrich Company v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582 (Fed. Cir. 1996) (“When obviousness is based on a particular prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference.”) Further, in order to properly combine references for supporting an obviousness rejection there must be some teaching, suggestion, or motivation to combine the references. *Akamai Technologies, Inc. v. Cable*

---

<sup>2</sup> Applicant is not claiming to have invented the use of primary and foreign keys in relational databases, but the present invention includes the novel use of primary and foreign keys for the protection of restricted data information.

& *Wireless Internet Services, Inc.*, 344 F. 3d 1186, 1196 (Fed. Cir. 2003) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation for combining these references.”) Applicant submits that these standards are not met by O’Flaherty alone, the O’Flaherty/Ng combination, or any combination formed by Date, Utley, or Deinhart being added to the O’Flaherty/Ng combination.

On pages 2-3 of the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. §103 based on O’Flaherty in view of Ng. According to the Examiner, the elements of claim 1 are shown as follows:

<b><i>Claim /Preamble Element</i></b>	<b><i>Examiner’s Citations From O’Flaherty and Ng</i></b>
1. An internal security method for a relational database system, comprising	Fig. 1, Item 152 (O’Flaherty)
(a) determining which data information from the total amount of data information stored in system databases is restricted data information that shall not be accessible by each and every 1 to N system users, where N is an integer greater than 1;	Col. 5, line 32-40; Col. 4, lines 8-18 and 27-29 (O’Flaherty)
(b) determining for each system user the restricted data information that such a system user shall have access;	Col. 4, lines 49-60 (O’Flaherty)
(c) creating at least one relational access table with each system user having at least one record in the relational access table that is keyed to that system user’s access to the restricted data information that was determined at step (b); and	Col. 4, lines 7-18 (O’Flaherty)  Col. 2, lines 10-20; Col. 4, line 50 – Col. 5, line 16 (Ng)
(d) each system user accessing restricted data information stored in the system databases according to the relational access table created at step (c).	Col. 4, lines 32-34 (O’Flaherty)

In the presently amended form of claim 1, the following is recited for element (c):

(c) creating at least one relational access table with each system user having at least one record in the relational access table and using a foreign key in the table created at step (c) that is linked to a primary key associated with a system user’s table of the relational database system for controlling the system user’s downstream access to the restricted data information that was determined at step (b) and preventing downstream and upstream access to unauthorized restricted data information through the use of a foreign key and primary key link; and

Applicant submits that a method set forth in claim 1 that includes at least element (c) would not be obvious to one of ordinary skill considering the O'Flaherty/Ng combination.

Element (c) of claim 1, contrary to use in Ng of foreign and primary keys as set forth above, recites that the relational access table uses a foreign key in the table created at step (c) that is linked to a primary key associated with a system user's table of the relational database system for controlling the system user's downstream access to the restricted data information that was determined at step (b) and prevents the system users' downstream or upstream unauthorized access to restricted data information through the use of a primary key/foreign key link. As set forth in the specification of the present application, this is a novel use the primary and foreign keys for internal database security:

First:

Referring to Figure 5, use of the primary keys is tracked by Primary Key Index Table 502. Through Table 502, assignments of primary key values are made only once. The primary keys that are assigned via Table 502 will be a foreign key in other Tables. (Specification, p. 4, line 29 to p. 5, line 2)

Second:

One of the items that will have a Primary Key value assigned to it will be each employee. Therefore, when a new employee...joins the company, the company begins a record for that employee. An example of an Employee Table is shown at 504. Employee Table 504 will include a number of fields. The first field is the Primary Key field which will include the Primary Key value that was assigned by Primary Key Index Table 502. (Specification, p. 5, lines 7-12)

Third:

Again referring to Figure 5, preferably, each individual in the company will have his/her restricted data information controlled by a Master Access Table, such as the one at 506....

Master Access Table 506 will have a number of fields. The first field will be the Primary Key for the Master Access Table that may be used as a foreign key for downstream related tables. The second field is the Foreign Key field which relates back to the appropriate Primary Key of Employee Table 504. The remainder of the fields will include information about the restricted materials that will be contained in each record of Master Access table 506, which [in the case of the CFO] will

include the record(s) pertaining to the CFO's access to restricted data information. These records may be increased or decreased by the system administrator based on directives from the appropriate authorities within the company. Each change of this type will change the system user's access level. (Specification, p. 14, lines 20-28)

#### Fourth

Noting the foregoing, Master Access Table 506 will not permit the CFO [for example] to have access to other restricted data information outside his/her view that is stored in the system databases. Moreover, internal security method of the present invention provides no "backdoor" by which an unauthorized user of the system may gain access even if given enough time in which he/she could normally hack into a system. Furthermore, even if for some reason the CFO compromises his/her access to the database system or it is compromised by some other means, the entity now has access based on the CFO's access can only have the CFO's view available for unauthorized entry nothing else. (Specification, p. 15, lines 20-27)

The four quotations immediately above from the specification of the present application clearly demonstrate the use of the primary and foreign keys to effect internal security for a relational database structure and prevent access to restricted data information not authorized for a particular user.

O'Flaherty teaches the use of an extended database method that incorporates both data and privacy parameter preferences in the same database. As such, should access be gained to that database, the privacy parameter preferences would be understood and could be changed. This would not be possible for the system of the present invention because even access to the database containing protected data would not provide an ability to have any knowledge of the security details of the database owner or provide an ability to change privacy preferences as would be possible with the O'Flaherty system.

The Examiner has attempted to add the teachings of Ng to the teachings of O'Flaherty to provide a combination to render claim 1 obvious. Applicant submits that first, it is improper to combine O'Flaherty and Ng, and second, the combination of these references does not teach claim 1.

Applicant has reviewed O'Flaherty and it makes no mention of the use of primary and foreign keys for associating database information and privacy information.



Applicants submits that O'Flaherty is directed to the virtual database system that makes associations for the purpose of privacy but does not contemplate the use of primary and foreign keys to restrict data access. As such, a person of ordinary skill in the art would not have any motivation to combine Ng's teachings of primary and foreign keys to what is disclosed in O'Flaherty. Therefore, the Examiner's combination of O'Flaherty and Ng is an improper combination and cannot properly form a rejection for obviousness under 35 U.S.C. §103 if the appropriate legal standard is followed.

Even if the Examiner did combine the teachings of O'Flaherty and Ng, Applicant submits that it would not render obvious the invention of claim 1. If the teachings of Ng relating to primary and foreign keys are added to the teachings of O'Flaherty, the result would be that the two databases tables, the Customer and Order Tables, such as shown in Figure 2 of Ng would have additional columns added to them related to the privacy preferences. As such, there would not be the control of access to restricted data in these tables predicated on the primary and foreign key links between the two database tables as is set forth in claim 1 of the present invention. Moreover, the combination of O'Flaherty and Ng would not prevent the compromise of additional restricted information if there was an unauthorized access to a table with its associated privacy parameters.

Given the foregoing, Applicant has provided at least two bases by which it has been demonstrated that O'Flaherty and Ng do not render the invention of claim 1 obvious. Therefore, the obviousness rejection raised against claim 1 cannot be sustained. Applicant has traversed the Examiner's obviousness rejection based on O'Flaherty and Ng, and requests that it be withdrawn.

Claims 2 and 3 add further limitations to claim 1. Therefore, claims 2 and 3 have all of the features of claim 1. Given this, claims 2 and 3 are not rendered obvious by O'Flaherty in view of Ng for the same reasons as claim 1. Applicant has traversed the obviousness rejection based on O'Flaherty and Ng as it has been applied to claims 2 and 3, and requests that this rejection be withdrawn.

## **VI. Claims 4-28 Are Not Obvious in View of Combinations That Include O’Flaherty as the Principal Reference and Ng as the Secondary Reference**

Referring to the Table in Section I that indicates each of the rejections issued by the Examiner in the Office Action, it is seen that the Examiner has rejected claims 4-28 for obviousness. Each of the bases for rejecting these claims under 35 U.S.C. §103 for obviousness relies on O’Flaherty as the primary reference and Ng as the first secondary referenced that are then combined with one or more of Date, Utley, and/or Deinhart. Applicant will demonstrate herein that claims 4-28 are not obvious in view of these combinations of references.

### **A. Claims 4 and 5 Are Not Obvious**

The Examiner has rejected claims 4 and 5 under 35 U.S.C. §103 for obviousness based on O’Flaherty in view of Ng and further in view of Date. Claims 4 and 5 depend from claim 1, and include all of the features of claim 1.

With regard to claim 4, O’Flaherty and Ng have been cited for their teachings as discussed with respect to the rejection of claims 1-3, and Date has been cited for the following:

According to Date, Update is expressed in the SQL language (Page 4 No. 5), SQL is an industry query language used in relational database[s].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Date’s Update (addition) instruction with the modified O’Flaherty and Ng system, because Update...is a standard SQL instruction and using an update instruction would make O’Flaherty’s database changeable. (Office Action, p. 4, line 18 to p. 5, line 2)

Regarding claim 5, O’Flaherty and Ng have been applied in the same way as they were applied to claim 4, and the Examiner has stated the following with respect to Date:

According to Date, Delete is expressed in the SQL language (Page 4 No. 5), SQL is an industry query language used in relational database[s].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Date’s Delete instruction with the O’Flaherty’s system, because Delete...is a standard

SQL instruction and using...[a] Delete instruction would make O'Flaherty's database changeable. (Office Action, p. 5, lines 7-14)

As set forth in Section V of this Response, Applicant has demonstrated that the O'Flaherty/Ng combination does not teach the combination of claim 1 that includes at least element (c). Since claims 4 and 5 depend from claim 1, each of these claims includes the features of claim 1. Thus, O'Flaherty/Ng also do not teach, suggest, or render obvious invention of claims 4 and 5. A review of Date demonstrates that it does not cure this infirmity of O'Flaherty and Ng. Moreover, a review of the combination of O'Flaherty, Ng, and Date makes plain that such this combination does not render claims 4 and 5 obvious at least because of the inclusion of step (c) in these claims. Having overcome the obviousness rejection raised against claim 4 and 5, the Examiner should withdraw this rejection.

## **B. Claims 6 and 7 Are Not Obvious**

The Examiner has rejected claims 6 and 7 under 35 U.S.C. §103 for obviousness based on the O'Flaherty/Ng combination further in view of Utley. Claims 6 and 7 depend from claim 1 and, therefore, include all of the features of claim 1.

With regard to claims 6 and 7, the O'Flaherty/Ng combination has been applied for its teachings as discussed with respect to the rejection of claims 1-3, and Utley was cited for the following alleged teaching:

According to [Utley] the Star Schema database is an OLAP (Online Analytical Processing) system (Page 1 paragraph 4). As OLAP uses a large scale of indexing, it is very convenient for data retrieval (Page 6 paragraph 1 line[s] 4-15, Page 1 paragraph 4 line[s] 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to interconnect the modified O'Flaherty and Ng system's databases in a star schema configuration as taught by Utley because it would have made the data retrieval much faster and more efficient. (Office Action, p. 5, line 22 to p. 6, line 8)

As set forth in Section V of this Response, Applicant has demonstrated that the O'Flaherty/Ng combination does not teach the combination of claim 1 that includes at least element (c). As such, because claims 6 and 7 depend from claim 1, these claims include this feature of claim 1. Given this, the O'Flaherty/Ng also does not teach, suggest, or render obvious claims 6 and 7 to the extent that these claims 6 and 7 include

the features of claim 1. A review of Utley demonstrates that it does not cure this infirmity of the O'Flaherty/Ng. It follows that claims 6 and 7 are not rendered obvious by the combination of O'Flaherty, Ng, Utley because of the failure of the combination to teach, suggest, consider, or contemplate the novel, nonobvious use of the foreign and primary keys to control internal security as set forth in these claims. Thus, claims 6 and 7 are not rendered obvious by the combination of O'Flaherty, Ng, and Utley. Since Applicant has traversed the obviousness rejection raised against claims 6 and 7, Applicant requests that this rejection be withdrawn.

### **C. Claims 8-10, 15-17, And 22-24 Are Not Obvious**

The Examiner has rejected claims 8-10, 15-17, and 22-24 under 35 U.S.C. §103 for obviousness based on the O'Flaherty/Ng combination further in view of Deinhart. Of these claims, claims 8, 15, and 22 are independent claims. Claims 9 and 10 depend from claim 8, claims 16 and 17 depend from claim 15, and claims 23 and 24 depend from claim 22. Independent claims 8, 15, and 22 have been amended to include features of the use of foreign and primary keys to effect the internal security of relational databases and prevent unauthorized upstream and downstream access in a manner similar to claim 1. This also will mean that the claims that depend for claims 8, 15, and 22 will include these features.

With respect to Deinhart, the Examiner states the following with regard to claims 8, 15, and 22:

[Deinhart] teaches an access control method that is designed on [the] basis of roles and responsibilities. Role types are organized hierarchically and [the] "first role subsumes a second role type" (Col 5 line[s] 25-35). A role with higher responsibility will include the access over a role with lower responsibility.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Deinhart's role-based hierarchical access control method on [the] database system with the modified O'Flaherty and Ng system, because in this way one with higher access authority will have control over their own as well as someone else's data underneath them and Data Integrity / Accuracy of the database is maintained...[through] this hierarchical access control process. (Office Action, p. 8, line 18 to p. 9, line 9)

Applicant submits that there are at least two bases that would dictate that the combination of O’Flaherty, Ng, and Deinhart would not render claims 8, 15, and 22 obvious.

Elements 8(e), 15(e), and 22(e) have been amended in a manner similar to 1(c) to include the features of the use of foreign and primary keys to effect internal security for relational databases and preventing of unauthorized upstream and downstream access to restricted data information. This feature is not taught, suggested, contemplated, or considered by the O’Flaherty/Ng combination. Furthermore, this feature is not taught, suggested, contemplated, or considered by Deinhart. Thus, any combination of O’Flaherty, Ng, and Deinhart would not render obvious the invention of claims 8, 15, or 22. Therefore, this is a first basis for traversing the obviousness rejection based on O’Flaherty, Ng, and Deinhart.

The standard for combining references is that there is some “teaching, suggestion, or motivation to combine the references.” Applicant asserts that this standard is not met in combining Deinhart to O’Flaherty and Ng.

O’Flaherty discloses a system that creates a database that includes the protected data and privacy parameters. Ng was cited just to show a relational database’s use foreign and primary keys. The O’Flaherty/Ng combination does not contemplate combining its teaching with the teachings of Deinhart relating to roles and views of data based on roles because the O’Flaherty/Ng combination would create a database for each user separately without any teaching, suggestion, or motivation for the use of roles for the purpose of viewing the combined database. Moreover, the Examiner has not pointed to any teaching, suggestion, or motivation to add the Deinhart teachings to what the O’Flaherty/Ng commendation teaches as must be done to properly combine references. As such, the Examiner has not met the standard for combining Deinhart with the O’Flaherty/Ng combination, thus making the combination of these three references improper and any obviousness rejection based on this combination should be withdrawn. This is a second basis by which Applicant traverses the Examiner’s obviousness rejection based on the O’Flaherty/Ng combination further in view of Deinhart.

Applicant has overcome the Examiner's basis for rejecting claims 8, 15, and 22 for obviousness based on the O'Flaherty/Ng combination further in view of Deinhart. Therefore, this ground of rejection should be withdrawn.

As stated, claims 9 and 10 depend from claim 8, claims 16 and 17 depend from claim 15, and claims 23 and 24 depend from claim 22. Each of these dependent claims adds features to the independent claim from which it depends. Therefore, each of the dependent claims is not obvious for the same reasons as the independent claim from which it depends. Thus, Applicant has traversed the obviousness rejection based on the O'Flaherty/Ng combination further in view of Deinhart as it has been applied to claims 9 and 10, 16 and 17, and 23 and 24, and requests that this rejection be withdrawn.

#### **D. Claims 11-12, 18-19, and 25-26 Are Not Obvious**

The Examiner has rejected claims 11-12, 18-19, and 25-26 under 35 U.S.C. §103 for obviousness based on the O'Flaherty/Ng combination further in view of Deinhart and Date. Claims 11 and 12 depend from claim 8, claims 18 and 19 depend from claim 15, and claims 24 and 25 depend from claim 22. Applicant asserts that the combination of the O'Flaherty/Ng combination further in view of Deinhart and Date does not render claims 11-12, 18-19, and 25-26 obvious.

With regard to claims 11, 18, and 25, the Examiner has stated the following as the ground of rejection for obviousness:

Claims 11-12, 18-19 and 25-26 are substantially similar to claims 4-5 and a rejected by the same logic (Office Action, p. 9, lines 16-17)

As set forth in Section V of this Response, Applicant has demonstrated that the O'Flaherty/Ng combination does not teach the combination of claim 1 that includes at least element (c). The features of claim 1(c) are also included in claim 8(e), 15(e), and 22(e) from which claims 11-12, 18-19, and 25-26 depend, respectively. A review of Date and Deinhart demonstrates that neither of these references cures this infirmity of the O'Flaherty/Ng, nor would either of these references render the invention of claims 11-12, 18-19, and 25-26 obvious. As such, claims 11-12, 18-19, and 25-26 are not rendered obvious by the combination of the O'Flaherty/Ng combination further in view of

Deinhart and Date. Having overcome the obviousness rejection raised against these claims, the Examiner should withdraw this rejection.

### **E. Claims 13-14, 20-21, and 27-28 Are Not Obvious**

The Examiner has rejected claims 13-14, 20-21, and 27-28 under 35 U.S.C. §103 for obviousness based on the O'Flaherty/ Ng combination further in view of Deinhart and Utley. Claims 13 and 14 depend from claim 8, claims 20 and 21 depend from claim 15, and claim 27 and 28 depend from claim 22. Applicant asserts that this combination does not render claims 13-14, 20-21, and 27-28 obvious.

With regard to claims 13-14, 20-21, and 27-28, the Examiner states the following with regard to O'Flaherty, Ng, Deinhart, and Utley:

Claims 13-14, 20-21, and 27-28 are substantially similar to claims 6-7 and are rejected by the same logic. (Office Action, p. 9, lines 22-23)

As set forth in Section V of this Response, Applicant has demonstrated that the O'Flaherty/Ng combination does not teach the combination of claim 1 that includes at least element (c). The features of claim 1(c) are also included in claim 8(e), 15(e), and 22(e) from which claims 13-14, 20-21, and 27-28 depend, respectively. A review of Deinhart and Utley demonstrates that neither reference cures this infirmity of the O'Flaherty/Ng combination, nor would either reference render the invention of claims 13-14, 20-21, or 27-28 obvious. Thus, claims 13-14, 20-21, and 27-28 are not rendered obvious by the combination of the O'Flaherty/Ng combination further in view of Deinhart and Utley. Since Applicant has traversed the obviousness rejection raised against claims 13-14, 20-21, and 27-28, Applicant requests that this rejection be withdrawn.

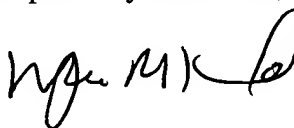
## **V. Conclusion**

Applicant has traversed each of the Examiner's rejections under 35 U.S.C. §103 for obviousness based on the O'Flaherty/Ng combination in various combinations with Date, Utley, and Deinhart. Having traversed these grounds of rejection, it is appropriate for the Examiner to withdraw each of them, which is respectfully requested. As such, the application is in condition for allowance and should be passed to issue in due course.

The present invention is new, nonobvious, and useful. Reconsideration and allowance of the claims is requested.

Dated: February 6, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Wayne M. Kennard', with a stylized flourish at the end.

Wayne M. Kennard  
Attorneys for the Applicant

Wilmer Cutler Pickering Hale and Dorr LLP  
60 State Street  
Boston, MA 02109  
Tel: 617-526-6183  
Fax: 617-526-5000  
Attorney Docket Number: 104017.160